

March 1, 2012

Mr. Gary E. Petersen York Plant Holding, LLC 651 Memory Lane York, PA 17402-0492

Re:

Plan Approval No. 67-05009C

Springettsbury Township, York County

Dear Mr. Petersen:

Please find enclosed a Department Plan Approval to construct, modify, reactivate, or install an air-cleaning device or an air contamination source. This Plan Approval contains special conditions, which must be fulfilled. Failure to do so violates Section 127.25 of the Department's rules and regulations, which may result in enforcement action and denial of an Operating permit.

A Department Operating permit will be issued <u>if</u>: 1) the special conditions incorporated within the Plan Approval have all been fulfilled; 2) the Department is satisfied that the project was carried out as proposed in the application, and that the operation of the source(s) and any associated air pollution control equipment conforms with the operational information stated on the application; and 3) the Department is satisfied that the air contaminant emissions from the source(s) comply with the requirements specified in, or established pursuant to, all applicable Department rules and regulations.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.



RECEIVED 2012

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please call Harold Wynkoop, Air Quality Program, at 717.705.4887.

Sincerely,

Cullian R. Weavent

William R. Weaver Regional Manager Air Quality Program

Enclosure

cc: Southcentral Region File 67-05009C

York District

U.S. EPA, Region III

Permits



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date:

February 29, 2012

Effective Date:

March 1, 2012

Expiration Date:

July 31, 2013

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to construct, install, modify or reactivate the air emission source(s) more fully described in the site inventory list. This Facility is subject to all terms and conditions specified in this plan approval. Nothing in this plan approval relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each plan approval condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated as "State-Only" requirements.

Plan Approval No. 67-05009C

Federal Tax Id - Plant Code: 33-0058470-1

Owner Information

Name: YORK PLT HOLDING LLC

Mailing Address: 651 MEMORYLN

YORK, PA 17402-0492

Plant Information

Plant: YORK PLT HOLDINGS LLC/SPRINGETTSBURY TWP

Location: 67

York County

67957 Springettsbury Township

SIC Code: 4931 Trans. & Utilities - Electric And Other Services Combined

Responsible Official

Name: GARY E PETERSEN Title: FACILITY MANAGER Phone: (717) 751 - 5125

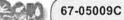
Plan Approval Contact Person

Name: GARY E PETERSEN
- Title: FACILITY MANAGER
Phone: (717) 751 - 5125

[Signature]

William R. Weaver#

WILLIAM R. WEAVER, SOUTHCENTRAL REGION AIR PROGRAM MANAGER



YORK PLT HOLDINGS LLC/SPRINGETTSBURY TWP



Plan Approval Description

This plan approval will allow for the construction and temporary operation of two new combustion turbines at the facility. A description of the project is included in Section H.

DEP Auth ID: 838532





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Note: These same sub-sections are repeated for each source!

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SECTION A. Table of Contents

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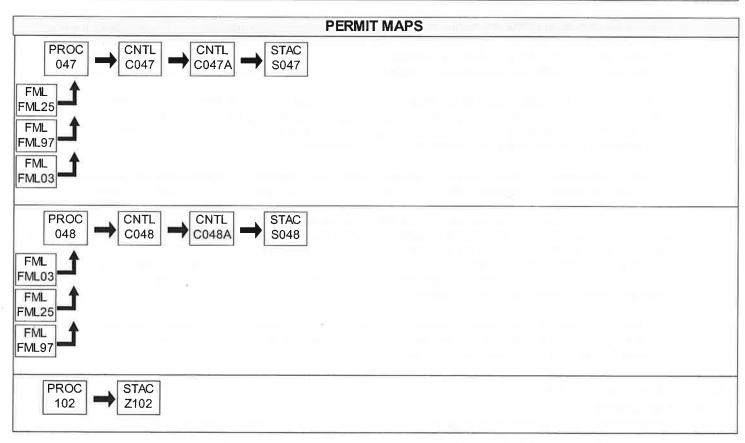
Section G. Emission Restriction Summary

Section H. Miscellaneous



SECTION A. Plan Approval Inventory List

Source	ID Source Name	Capacity/Throughput	Fuel/Material
047	COMBUSTION TURBINE, DUAL FUEL, T01	634.000 MMBTU/HR	
048	COMBUSTION TURBINE, DUAL FUEL, T02	634.000 MMBTU/HR	
102	15,000 GAL AMMONIA STORAGE TANK		
C047	TURBINE T01 SCR		
C047A	TURBINE T01 CATALYTIC OXIDIZER		
C048	TURBINE T02 SCR		
C048A	TURBINE T02 CATALYTIC OXIDIZER		
FML03	ULTRA LOW SULFUR DIESEL		
FML25	NATURAL GAS PIPELINE		
FML97	ULTRA LOW SULFUR KEROSENE		-41
S047	TURBINE T01 STACK		
S048	TURBINE T02 STACK		
Z102	SOURCE 102 FUGITIVE EMISSIONS		





SECTION B. General Plan Approval Requirements

#001 [25 Pa. Code § 121.1]

Definitions

Words and terms that are not otherwise defined in this plan approval shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.12b (a) (b)]

Future Adoption of Requirements

The issuance of this plan approval does not prevent the future adoption by the Department of any rules, regulations or standards, or the issuance of orders necessary to comply with the requirements of the Federal Clean Air Act or the Pennsylvania Air Pollution Control Act, or to achieve or maintain ambient air quality standards. The issuance of this plan approval shall not be construed to limit the Department's enforcement authority.

#003 [25 Pa. Code § 127.12b]

Plan Approval Temporary Operation

This plan approval authorizes temporary operation of the source(s) covered by this plan approval provided the following conditions are met.

- (a) When construction, installation, modification, or reactivation is being conducted, the permittee shall provide written notice to the Department of the completion of the activity approved by this plan approval and the permittee's intent to commence operation at least five (5) working days prior to the completion of said activity. The notice shall state when the activity will be completed and when the permittee expects to commence operation. When the activity involves multiple sources on different time schedules, notice is required for the commencement of operation of each source.
- (b) Pursuant to 25 Pa. Code § 127.12b (d), temporary operation of the source(s) is authorized to facilitate the shakedown of sources and air cleaning devices, to permit operations pending the issuance of a permit under 25 Pa. Code Chapter 127, Subchapter F (relating to operating permits) or Subchapter G (relating to Title V operating permits) or to permit the evaluation of the air contaminant aspects of the source.
- (c) This plan approval authorizes a temporary operation period not to exceed 180 days from the date of commencement of operation, provided the Department receives notice from the permittee pursuant to paragraph (a), above.
- (d) The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 15 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.
- (e) The notice submitted by the permittee pursuant to subpart (a) above, prior to the expiration of the plan approval, shall modify the plan approval expiration date on Page 1 of this plan approval. The new plan approval expiration date shall be 180 days from the date of commencement of operation.

#004 [25 Pa. Code § 127.12(a) (10)]

Content of Applications

The permittee shall maintain and operate the sources and associated air cleaning devices in accordance with good engineering practice as described in the plan approval application submitted to the Department.

#005 [25 Pa. Code §§ 127.12(c) and (d) & 35 P.S. § 4013.2]

Public Records and Confidential Information

- (a) The records, reports or information obtained by the Department or referred to at public hearings shall be available to the public, except as provided in paragraph (b) of this condition.
- (b) Upon cause shown by the permittee that the records, reports or information, or a particular portion thereof, but not emission data, to which the Department has access under the act, if made public, would divulge production or sales figures or methods, processes or production unique to that person or would otherwise tend to affect adversely the

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SECTION B. General Plan Approval Requirements

competitive position of that person by revealing trade secrets, including intellectual property rights, the Department will consider the record, report or information, or particular portion thereof confidential in the administration of the act. The Department will implement this section consistent with sections 112(d) and 114(c) of the Clean Air Act (42 U.S.C.A. § § 7412(d) and 7414(c)). Nothing in this section prevents disclosure of the report, record or information to Federal, State or local representatives as necessary for purposes of administration of Federal, State or local air pollution control laws, or when relevant in a proceeding under the act.

#006 [25 Pa. Code § 127.12b]

Plan Approval terms and conditions.

[Additional authority for this condition is derived from 25 Pa. Code Section 127.13]

- (a) This plan approval will be valid for a limited time, as specified by the expiration date contained on Page 1 of this plan approval. Except as provided in § § 127.11a and 127.215 (relating to reactivation of sources; and reactivation), at the end of the time, if the construction, modification, reactivation or installation has not been completed, a new plan approval application or an extension of the previous approval will be required.
- (b) If construction has commenced, but cannot be completed before the expiration of this plan approval, an extension of the plan approval must be obtained to continue construction. To allow adequate time for departmental action, a request for the extension shall be postmarked at least thirty (30) days prior to the expiration date. The request for an extension shall include the following:
 - (i) A justification for the extension,
 - (ii) A schedule for the completion of the construction

If construction has not commenced before the expiration of this plan approval, then a new plan approval application must be submitted and approval obtained before construction can commence.

(c) If the construction, modification or installation is not commenced within 18 months of the issuance of this plan approval or if there is more than an 18-month lapse in construction, modification or installation, a new plan approval application that meets the requirements of 25 Pa. Code Chapter 127, Subchapter B (related to plan approval requirements), Subchapter D (related to prevention of significant deterioration of air quality), and Subchapter E (related to new source review) shall be submitted. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

#007 [25 Pa. Code § 127.32]

Transfer of Plan Approvals

- (a) This plan approval may not be transferred from one person to another except when a change of ownership is demonstrated to the satisfaction of the Department and the Department approves the transfer of the plan approval in writing.
- (b) Section 127.12a (relating to compliance review) applies to a request for transfer of a plan approval. A compliance review form shall accompany the request.
- (c) This plan approval is valid only for the specific source and the specific location of the source as described in the application.

#008 [25 Pa. Code § 127.12(4) & 35 P.S. § 4008 & § 114 of the CAA]

Inspection and Entry

- (a) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.
- (b) The permittee shall also allow the Department to have access at reasonable times to said sources and associated air cleaning devices with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act and regulations adopted under the act.





SECTION B. General Plan Approval Requirements

(c) Nothing in this plan approval condition shall limit the ability of the Environmental Protection Agency to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#009 [25 Pa. Code 127.13a]

Plan Approval Changes for Cause

This plan approval may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

- (a) The permittee constructs or operates the source subject to the plan approval in violation of the act, the Clean Air Act, the regulations promulgated under the act or the Clean Air Act, a plan approval or permit or in a manner that causes air pollution.
- (b) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.
- (c) The permittee fails to submit a report required by this plan approval.
- (d) The Environmental Protection Agency determines that this plan approval is not in compliance with the Clean Air Act or the regulations thereunder.

#010 [25 Pa. Code §§ 121.9 & 127.216]

Circumvention

- (a) The permittee, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.
- (b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this plan approval, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#011 [25 Pa. Code § 127.12c]

Submissions

Reports, test data, monitoring data, notifications shall be submitted to the:

Regional Air Program Manager

PA Department of Environmental Protection

(At the address given on the plan approval transmittal letter or otherwise notified)

#012 [25 Pa. Code § 127.12(9) & 40 CFR Part 68]

Risk Management

- (a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).
- (b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the facility. The permittee shall submit the RMP to the Environmental Protection Agency according to the following schedule and requirements:
- (1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:





SECTION B. General Plan Approval Requirements

- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.
- (2) The permittee shall submit any additional relevant information requested by the Department or the Environmental Protection Agency concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.
- (3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.
- (c) As used in this plan approval condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

#013 [25 Pa. Code § 127.25]

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Compliance Requirement

A person may not cause or permit the operation of a source subject to § 127.11 (relating to plan approval requirements), unless the source and air cleaning devices identified in the application for the plan approval and the plan approval issued to the source, are operated and maintained in accordance with specifications in the application and conditions in the plan approval issued by the Department. A person may not cause or permit the operation of an air contamination source subject to this chapter in a manner inconsistent with good operating practices.





I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- a.) The permittee shall submit semiannual reports to the Department regarding the project that is the subject of this plan approval. The reports shall be due on January 31 and July 31 of each year. The permittee shall continue submitting these reports until either:
- 1.) the first plan approval extension application for the project has been submitted, or
- 2.) the permit administrative amendment application has been submitted for the project, or
- 3.) an operating permit initial or renewal application addressing the inclusion of this plan approval, has been submitted for the facility.
- b.) The semiannual reports shall contain the following:
- 1.) a brief summary of the status of the project, including any key construction milestones during the relevant semiannual period, and
- 2.) a statement of whether the equipment that is the subject of the plan approval has begun operating for any purpose, and what was the date that such operation began.
- 3.) a statement of whether a plan approval extension is expected to be needed during the upcoming semiannual period, and if so, when the permittee anticipates submitting the application for such an extension.
- c.) The semiannual reports shall be sent to: Air Quality Program Manager, Department of Environmental Protection, Southcentral Regional Office, 909 Elmerton Avenue, Harrisburg, PA 17110.
- d.) Within 60 days of the Department's written request to do so, the permittee shall submit either:
- 1.) an initial state-only or Title V operating permit application for this facility, or
- 2.) an application for administrative amendment to incorporate the provisions of this plan approval into an existing state-only or Title V operating permit.



VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee is subject to and shall comply with all of the Site Level Requirements that are contained in the facility's Title V Operating Permit, issued on August 27, 2009.

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this plan approval including Section B (relating to Plan Approval General Requirements).

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.





Source ID: 047

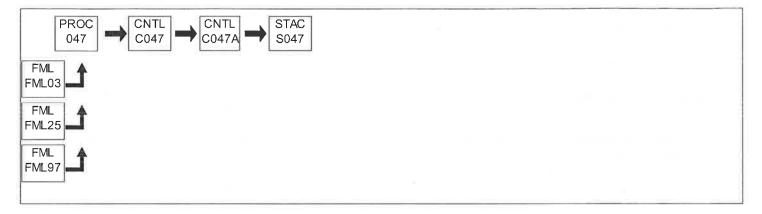
Source Name: COMBUSTION TURBINE, DUAL FUEL, T01

Source Capacity/Throughput:

634.000 MMBTU/HR

Conditions for this source occur in the following groups: SG01

SG02 SG03 SG04



RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).





VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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Source ID: 048

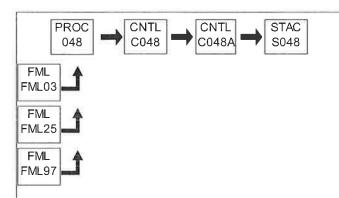
Source Name: COMBUSTION TURBINE, DUAL FUEL, T02

Source Capacity/Throughput:

634.000 MMBTU/HR

Conditions for this source occur in the following groups: SG01

SG02 SG03 SG04



RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).





VII. ADDITIONAL REQUIREMENTS.

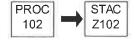
No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).



Source ID: 102

Source Name: 15,000 GAL AMMONIA STORAGE TANK

Source Capacity/Throughput:



RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS:

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).



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SECTION E. Source Group Plan Approval Restrictions.

Group Name:

SG01

Group Description: Combustion Turbines

Sources included in this group

ID Name

047 COMBUSTION TURBINE, DUAL FUEL, T01

048 COMBUSTION TURBINE, DUAL FUEL, T02

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.1]

Purpose.

Pursuant to the Best Available Technology (BAT) provision of 25 Pa. Code Section 127.1, the permittee shall limit the emission of ammonia from each SCR to:

5 ppmvd, volume corrected to 15 percent oxygen, based on a 3-hour average, rolling by 1-hour

as measured by a continuous monitoring system.

002 [25 Pa. Code §127.1]

Purpose.

Pursuant to the Best Available Technology (BAT) provisions of 25 Pa. Code Section 127.1, the permittee shall limit the emissions from each combustion turbine to the following:

Gas Firing:

NOx (as NO2) 2.5 ppmvd, based on a 3-hour average, rolling by 1-hour

CO 5.0 ppmvd, based on a 3-hour average, rolling by 1-hour

SO2 1.6 lb/hr

VOC 2.7 ppmvd, measured as propane

PM2.5 (filterable and condensible) - 5.9 lb/hr

Oil Firing:

NOx (as NO2) 5.0 ppmvd, based on a 3-hour average, rolling by 1-hour

CO 5.0 ppmvd, based on a 3-hour average, rolling by 1-hour

SO2 1.9 lb/hr

VOC 2.0 ppmvd, measured as propane

PM2.5 (filterable and condensible) - 15.0 lb/hr

All ppmvd values are based on dry measurements at 15 percent oxygen. These limits apply at all times except periods of start-up and shutdown.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The emission levels in Conditions #001 and #002 apply at all times except during periods of start-up and shutdown as defined as follows:

- a. Start-Up: A start-up period is a 60-minute period commencing with initial fire.
- b. Shut-Down: A shut-down period is a 60-minute period that ends with complete cessation of firing.





004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The visible air contaminants from each combustion turbine exhaust stack shall not be emitted in such a manner that the opacity of the emission is equal to or greater than 10% for a period of periods aggregating more than 3 minutes in any one hour; or equal to or greater than 30% at any time.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall limit combined emissions from the two turbines during any consecutive 12-month period to the following:

- a. Nitrogen oxides (NOx) as nitrogen dioxide (NO2) 21.7 tons
- b. Volatile organic compounds (VOCs) 6.4 tons
- c. Carbon monoxide (CO) 20.7 tons
- d. Sulfur Oxides (SOx) as sulfur dioxide (SO2) 6.5 tons
- e. Particulate matter filterable and condensible (TSP/PM10/PM2.5) 25.4 tons
- f. Sulfuric acid mist (H2SO4) less than 7 tons
- g. Greenhouse Gases (CO2e) 267,000 tons

006 [25 Pa. Code §127.83]

Adoption of program.

Pursuant to the Best Available Control Technology (BACT) provisions of 25 Pa. Code Section 127.83, the permittee shall limit the emissions from each combustion turbine to the following:

Gas Firing:

PM/PM10 (filterable and condensible) - 5.9 lb/hour

CO2e (as CO2, CH4 & N20) - 1,330 lb/MWh (net output) (30-day rolling basis)

Oil Firing:

PM/PM10 (filterable and condensible) - 15.0 lb/hour

CO2e (as CO2, CH4 & N20) - 1,890 lb/MWh (net output) (30-day rolling basis)

The net output of each turbine shall be calculated as follows:

 $Ni = N \times Gi / (G1 + G2)$

Where:

Ni = The net output of turbine i

N = The total net output of both turbines combined

Gi = The gross output of turbine i

G1 = The gross output of turbine 1

G2 = The gross output of turbine 2

These limits apply at all times, including periods of start-up and shutdown.

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SECTION E. Source Group Plan Approval Restrictions.

Fuel Restriction(s).

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The combined number of hours of operation for both turbines shall not exceed 6000 hours per each consecutive 12-month period.

The combined number of hours of distillate fuel oil firing for both turbines shall not exceed 1700 hours per each consecutive 12-month period.

008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The liquid distillate fuel oil fired in the combustion turbines shall be ultra low sulfur kerosene - maximum sulfur content of 15 ppm or ultra low sulfur diesel (ULSD) - maximum sulfur content of 15 ppm (as defined in ASTM standard D975 Table 1).

009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The natural gas burned in the combustion turbines shall meet the definition of pipeline natural gas as per 40 CFR Part 72.2. Documentation shall be as per Appendix D to 40 Part 75 Section 2.3.1.4 Documentation that a Fuel is Pipeline Natural Gas.

010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Combustion Turbines, Source IDs 047 and 048 shall fire only distillate fuel oil, as defined in Condition 008 of this section or natural gas, as defined in Condition 009 of this section.

Operation Hours Restriction(s).

011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The turbines shall not combust oil from 8:00 PM through 6:00 AM on any day.

II. TESTING REQUIREMENTS.

012 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Within 60 days after achieving the maximum firing rate, but not later than 180 days after start-up and, if warranted and requested by the Department based on the results of initial testing, each subsequent year of temporary operation thereafter, the permittee shall demonstrate compliance with each of the TSP/PM10/PM2.5 (filterable and condensible), SO2, NOx, CO, CO2e, VOC and ammonia emission limits established in Conditions #001, #002, and #006 above; the H2SO4 mist annual limit established in Condition #005 above; the opacity limits established in Condition #004 above and the HAP emission limits established in Condition #002, Section C, as per 25 Pa. Code Chapter 139, 40 CFR Part 60 and Title IV.

The owner or operator of an affected facility may elect to determine compliance of CO2e emissions based on a 30-day rolling average basis by using turbine fuel consumption and methods specified in 40 CFR Part 98. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded during the 30-day period.

The Department will determine the subsequent testing frequency following the initial compliance determination, based upon emissions and equipment performance over a representative and adequate time period, and reserves the right to revise and make more stringent the emissions standards based on actual stack test results and/or CEM data.

The applicant shall develop a testing protocol for HAP emissions, including all HAPs listed below, and submit the protocol to the Department for review.

HAPs while combusting natural gas:



Acetaldehyde Formaldehyde

HAPs while combusting distillate oil:

Formaldehyde Acetaldehyde Manganese

The testing shall be done while the turbines are operating at 95 to 100 percent of maximum load for the ambient conditions at the time of the test.

Separate performance testing is required for each fuel, natural gas and distillate oil. The distillate oil can be either ultra low sulfur kerosene or ultra low sulfur diesel as per Condition #008, Source Group SG01.

013 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- a. At least forty-five (45) calendar days prior to commencing an emission testing program required by this plan approval, a Test Protocol shall be submitted to the Department's Division of Source Testing and Monitoring and the Air Quality Program Manager at the Southcentral Regional Office for review and approval. The Test Protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual. The emissions testing shall not commence prior to receipt of a protocol acceptance letter from the Department.
- b. At least fifteen (15) calendar days prior to commencing an emission testing program required by this plan approval, written notification of the date and time of testing shall be provided to the Department's Southcentral Regional Office. Notification, in writing, shall also be sent to the Department's Bureau of Air Quality, Division of Source Testing and Monitoring. The Department is under no obligation to accept the results of any testing performed without adequate advance written notice to the Department of such testing. Notification shall also be sent to the Department's Division of Source Testing and Monitoring so that an observer may be present.
- c. Within fifteen (15) calendar days after completion of the on-site testing portion of an emission test program required by this plan approval, if a complete test report has not yet been submitted, an electronic mail notification shall be sent to the Department's Division of Source Testing and Monitoring at RA-epstacktesting@state.pa.us and the Southcentral Regional Office at wiweaver@state.pa.us indicating the completion date of the on-site testing.
- d. A complete test report shall be submitted to the Department no later than sixty (60) calendar days after completion of the on-site testing portion of an emission test program required by this plan approval.
- e. A complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or non-compliance with all applicable plan approval conditions. The summary results will include, at a minimum, the following information:
- i. A statement that the permittee has reviewed the report from the emissions testing body and agrees with the findings;
- ii. Plan approval number(s) and condition(s) which are the basis for the evaluation;
- iii. Summary of results with respect to each applicable plan approval condition; and
- iv. Statement of compliance or non-compliance with each applicable plan approval condition.
- f. All submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- g. All testing shall be performed in accordance with 25 Pa. Code Chapter 139 (relating to sampling and testing).
- h. The following process data shall be recorded during each test run to document the operation of the combustion turbines:
- 1. The hours of operation for each combustion turbine



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SECTION E. Source Group Plan Approval Restrictions.

- 2. Hourly fuel consumption rate
- 3. The heat input rate for each combustion turbine per each hour, mmBtu/hr.
- 4. The gross and net power output in MW.
- 5. The gross and net heat rate for each turbine, Btu/kWh.
- i. All submittals, except notifications, shall be accomplished through PSIMS*Online available through https://www.depgreenport.state.pa.us/ecomm/Login.jsp. If internet submittal is not feasible, one (1) copy of the submittal shall be sent to the Air Quality Program Manager at the Pennsylvania Department of Environmental Protection Southcentral Regional Office and to the attention of the Department's Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor, Rachel Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.
- j. If, at any time, the Department has reason to believe that the air contaminant emissions from the combustion turbines are, or may be, in excess of any applicable air contaminant emission limitation, the permittee shall conduct such stack tests or source tests as are deemed necessary by the Department to determine the actual air contaminant emission rate. The permittee shall, upon the request of the Department, provide input material analyses, or input material samples used in the combustion turbines that are authorized to operate under this plan approval.

III. MONITORING REQUIREMENTS.

014 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall install and maintain fuel flow meters for all acid rain affected sources in accordance with the requirements of 40 CFR Part 75. The fuel flow will be measured in accordance with Part 75, Appendix D requirements, in lieu of stack exhaust flow monitoring, to allow for calculation of pollutant mass emission rates.

015 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall monitor and record the following parameters for each of the SCR systems associated with the Source Group, SG01 combustion turbines:

Catalyst bed inlet temperature Ammonia solution injection rate Ammonia solution concentration

016 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall maintain and operate a continuous monitoring system to monitor and record the ammonia slip, in ppmvd, volume corrected to 15 percent oxygen, based on a 3 hour rolling avg for each of the SCR systems associated with the Source Group SG01 combustion turbines.

IV. RECORDKEEPING REQUIREMENTS.

017 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Records required under this Plan Approval and 40 CFR Part 60 shall be kept for a period of five years and shall be made available to the Department upon its request.

- a. The permittee shall maintain records of all air pollution control system performance evaluations and records of calibration checks, adjustments and maintenance performed on all equipment, which is subject to this plan approval.
- b. The permittee shall maintain a copy of the manufacturer's recommendations for the two combustion turbines and air pollution control equipment on-site.





- c. The permittee shall maintain a copy of the manufacturer's recommendations for all CEMs that are required by this Plan Approval.
- d. The permittee shall keep a record of the date of malfunctions, the time of the malfunction, the cause of the malfunction, and the action taken to correct the malfunction.

018 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall record each start-up and shutdown, including date and times of each event. Emissions during start-up will be calculated based upon the emissions estimates approved by the Department and included in the total 12-month emissions recorded in accordance with Condition #005.

019 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall, at the minimum, record the following:

- a. Hourly and rolling 30-day fuel consumption rate and 12-month rolling total fuel consumption for each combustion turbine,
- b. 30-day and 12-month rolling CO2e emissions (lb CO2e/MWh), based on net and gross power outputs.
- c. Monthly and 12-month rolling emission totals of TSP/PM10/PM2.5 (filterable and condensible), SO2, NOx, CO, VOC, H2SO4 mist, individual HAP and total HAPs.

NOx and CO will be measured by CEM; SO2 will be calculated based on fuel consumption and fuel sulfur content in accordance with Part 75 requirements; CO2e will be calculated based on a combination of turbine fuel consumption and methods specified in 40 CFR Part 98; TSP/PM10/PM2.5 (filterable and condensible), H2SO4 mist, VOC, individual HAP and total HAPs will be based on fuel consumption and emission factors determined during compliance stack testing. Start-up emissions will be calculated based on the recorded number of start-ups and the start-up emission rates as approved by the Department.

- d. Hours of start-up and shutdown for each turbine.
- e. Hourly and monthly hours of operation for each turbine for each fuel fired.
- f. The dates and times of when distillate fuel oil is combusted.
- g. Net and gross power output for each turbine (MW).
- h. Heat input rate for each turbine, mmBtu/hr (HHV)
- i. The net and gross heat rate for each turbine, Btu/kWh (HHV).
- j. The measured SCR parameters as required in Condition 015.
- k. The ammonia slip as required in Condition 016.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

020 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall operate and maintain the ammonia continuous monitoring system required in Condition 016 in





accordance with the manufacturers' recommendations/specifications, including but not limited to periodic calibrations to ensure accuracy, as well as in a manner consistent with good operating practices.

VII. ADDITIONAL REQUIREMENTS.

021 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Department reserves the right to use the CEMs data, stack test results, and the operating parameters determined during optimization of the turbines and their associated air cleaning devices to verify emission rates, to establish emission factors, and to develop compliance assurance measures in the Operating Permit.

022 [25 Pa. Code §127.531]

Special conditions related to acid rain.

The combustion turbine units are subject to the Title V Acid Rain Program of the Clean Air Act Amendments of 1990 and shall comply with all applicable provisions of that Title, to include the following:

40 CFR Part 72 Permits Regulation

40 CFR Part 73 Sulfur Dioxide Allowance System

40 CFR Part 75 Continuous Emission Monitoring

40 CFR Part 77 Excess Emissions





Group Name:

SG02

Group Description: 40 CFR Part 60 Subpart KKKK Turbine NSPS

Sources included in this group

ID	Name
047	COMBUSTION TURBINE, DUAL FUEL, T01
048	COMBUSTION TURBINE, DUAL FUEL, T02

I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4320]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines What emission limits must I meet for nitrogen oxides (NOX)?

60.4320(a) - The permittee is required to meet an emission limit for NOx of 25 ppm at 15 percent O2 or 150 ng/J of useful output (1.2 lb/MWh) while firing natural gas and an emission limit for NOx of 74 ppm at 15 percent O2 or 460 ng/J of useful output (3.6 lb/MWh) while firing fuels other than natural gas. This is based on Table 1 of Subpart KKKK for new turbines with heat input > 50 MMBtu/h and = 850 MMBtu/h.

60.4320(b) - If two or more turbines are connected to a single generator, each turbine must meet the above emission limits for NOx.

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4325]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What emission limits must I meet for NOX if my turbine burns both natural gas and distillate oil (or some other combinati

You must meet the emission limits specified in Table 1 to this subpart. If your total heat input is greater than or equal to 50 percent natural gas, you must meet the corresponding limit for a natural gas-fired turbine when you are burning that fuel. Similarly, when your total heat input is greater than 50 percent distillate oil and fuels other than natural gas, you must meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that you burn that particular fuel.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources § 40 CFR 60.4330]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines What emission limits must I meet for sulfur dioxide (SO2)?

60.4330(a)

If your turbine is located in a continental area, you must comply with either paragraph (a)(1), (a)(2), or (a)(3) of this section. If your turbine is located in Alaska, you do not have to comply with the requirements in paragraph (a) of this section until January 1, 2008.

60.4330(a)(1)

You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO2 in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output;

60.4330(a)(2)

You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement; or

60.4330(a)(3) - [N/A - BIOGAS IS NOT COMBUSTED IN THIS TURBINE]

60.4330(b) - [N/A - FACILITY HAS ACCESS TO NATURAL GAS]



II. TESTING REQUIREMENTS.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4400] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How do I conduct the initial and subsequent performance tests, regarding NOX?

60.4400(a) thru (b) [N/A - INITIAL PERFORMANCE TEST IS CONDUCTED IN ACCORDANCE WITH 60.4405]

60.4400(b)(1) - If the stationary combustion turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel.

60.4400(b)(2) - [N/A - TURBINE UNITS ARE NOT COMBINED CYCLE AND CHP TURBINE SYSTEMS WITH SUPPLEMENTAL HEAT (DUCT BURNER)]

60.4400(b)(3) - [N/A - SCR POST-COMBUSTION NOX CONTROLS ARE USED]

60.4400(b)(4) - [N/A - INITIAL PERFORMANCE TEST IS CONDUCTED IN ACCORDANCE WITH 60.4405]

60.4400(b)(5) - If you elect to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in § 60.4405) as part of the initial performance test of the affected unit.

60.4400(b)(6) - [N/A - INITIAL PERFORMANCE TEST IS CONDUCTED IN ACCORDANCE WITH 60.4405]

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4405] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines
How do I perform the initial performance test if I have chosen to install a NOX-diluent CEMS?

If you elect to install and certify a NOX-diluent CEMS under 40 CFR §60.4345, then the initial performance test required under §60.8 may be performed in the following alternative manner:

- (a) Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level, within plus or minus 25 percent of 100 percent of peak load. The ambient temperature must be greater than 0 °F during the RATA runs.
- (b) For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) and measure the electrical and thermal output from the unit.
- (c) Use the test data both to demonstrate compliance with the applicable NOX emission limit under §60.4320 and to provide the required reference method data for the RATA of the CEMS described under §60.4335.
- (d) Compliance with the applicable emission limit in §60.4320 is achieved if the arithmetic average of all of the NOX emission rates for the RATA runs, expressed in units of ppm or lb/MWh, does not exceed the emission limit.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4410] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines
How do I establish a valid parameter range if I have chosen to continuously monitor parameters?
60.4410 - [N/A - TURBINES ARE USING CEMS]

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4415]
Subpart KKKK - Standards of Performance for Stationary Combustion Turbines
How do I conduct the initial and subsequent performance tests for sulfur?
60.4415(a) - [N/A - THE SULFUR CONTENT OF THE FUEL IS DETERMINED IN ACCORDANCE WITH 60.4365]

III. MONITORING REQUIREMENTS.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4335] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How do I demonstrate compliance for NOX if I use water or steam injection?



40 CFR 60.4335(a) - [N/A - A NOX CEM WILL BE INSTALLED]

40 CFR 60.4335(b)(1)

Install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NOX monitor and a diluent gas (oxygen (O2) or carbon dioxide (CO2)) monitor, to determine the hourly NOX emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu).

60.4335(b)(2) - [N/A - THE UNITS ARE NOT DEMONSTRATING COMPLIANCE WITH OUTPUT-BASED STANDARDS (LB/MWH)]

60.4335(b)(3) - [N/A - THE UNITS ARE NOT DEMONSTRATING COMPLIANCE WITH OUTPUT-BASED STANDARDS (LB/MWH)]

60.4335(b)(4) - [N/A - THE TURBINES ARE NOT COMBINED HEAT AND POWER UNITS]

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4340] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How do I demonstrate continuous compliance for NOX if I do not use water or steam injection?

40 CFR 60.4340(a) - [N/A - A NOX CEM WILL BE INSTALLED]

40 CFR 60.4340(b)(1)

As an alternative to the annual NOx emission testing in 40 CFR 60.4340(a), you may install, calibrate, maintain and operate a continuous emission monitoring system as described in 40 CFR 60.4335(b) and 60.4345.

40 CFR 60.4340(b)(2)(i) thru (iv) - [N/A - A NOX CEM WILL BE INSTALLED]

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4345]
Subpart KKKK - Standards of Performance for Stationary Combustion Turbines
What are the requirements for the continuous emission monitoring system equipment, if I choose to use this option?
If the option to use a NOX CEMS is chosen:

- (a) Each NOX diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B to this part (40 CFR Part 60), except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in appendix F to this part (40 CFR Part 60) is not required. Alternatively, a NOX diluent CEMS that is installed and certified according to appendix A of part 75 of this chapter (40 CFR Part 75) is acceptable for use under this subpart (40 CFR Part 60 Subpart KKKK). The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.
- (b) As specified in 40 CFR §60.13(e)(2), during each full unit operating hour, both the NOX monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NOX emission rate for the hour.
- (c) Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to part 75 of this chapter are acceptable for use under this subpart.
- (d) Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.



(e) The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this section (40 CFR 60.4345). For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in section 1 of appendix B to part 75 of this chapter.

[40 CFR Part 60.4345(a)-(e)]

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4350]
Subpart KKKK - Standards of Performance for Stationary Combustion Turbines
How do I use data from the continuous emission monitoring equipment to identify excess emissions?

For purposes of identifying excess emissions:

60.4350(a) All CEMS data must be reduced to hourly averages as specified in §60.13(h).

60.4350(b) For each unit operating hour in which a valid hourly average, as described in §60.4345(b), is obtained for both NOX and diluent monitors, the data acquisition and handling system must calculate and record the hourly NOX emission rate in units of ppm or lb/MMBtu, using the appropriate equation from method 19 in appendix A of this part. For any hour in which the hourly average O2 concentration exceeds 19.0 percent O2 (or the hourly average CO2 concentration is less than 1.0 percent CO2), a diluent cap value of 19.0 percent O2 or 1.0 percent CO2 (as applicable) may be used in the emission calculations.

60.4350(c) Correction of measured NOX concentrations to 15 percent O2 is not allowed.

60.4350(d) If you have installed and certified a NOX diluent CEMS to meet the requirements of part 75 of this chapter, states can approve that only quality assured data from the CEMS shall be used to identify excess emissions under this subpart. Periods where the missing data substitution procedures in subpart D of part 75 are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under §60.7(c).

60.4350(e) All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages.

60.4350(f)

Calculate the hourly average NOX emission rates, in units of the emission standards under § 60.4320, using either ppm for units complying with the concentration limit or the following equation for units complying with the output based standard:

60.4350(f)(1) - [N/A - UNITS ARE COMPLYING WITH THE CONCENTRATION LIMITS AND NOT THE OUTPUT BASED STANDARD]

60.4350(f)(2) - [N/A - TURBINES ARE NOT COMBINED-CYCLE AND COMBINED HEAT AND POWER UNITS]

60.4350(f)(3) - [N/A - UNITS ARE COMPLYING WITH THE CONCENTRATION LIMITS AND NOT THE OUTPUT BASED STANDARD]

60.4350(g) For simple cycle units without heat recovery, use the calculated hourly average emission rates from paragraph (f) of this section to assess excess emissions on a 4-hour rolling average basis, as described in §60.4380(b)(1).

60.4350(h) - [N/A - TURBINES ARE NOT COMBINED CYCLE AND COMBINED HEAT AND POWER UNITS WITH HEAT RECOVERY]

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4355] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How do I establish and document a proper parameter monitoring plan?

60.4355(a), 60.4355(a)(1) - (a)(6) & 60.4355(b) - [N/A - A NOX CEM WILL BE INSTALLED INSTEAD OF PARAMETER MONITORING]



013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4360] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How do I determine the total sulfur content of the turbine's combustion fuel?

60.4360 - [N/A - FUEL SULFUR CONTENT IS MONITORED IN ACCORDANCE WITH 60.4365]

014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4365] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How can I be exempted from monitoring the total sulfur content of the fuel?

You may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for units located in continental areas and 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input for units located in noncontinental areas or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. You must use one of the following sources of information to make the required demonstration:

60.4365(a) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less and 0.4 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for noncontinental areas, has potential sulfur emissions of less than less than 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input for noncontinental areas.

60.4365(b) - [N/A - FACILITY IS COMPLYING WITH 60.4365(a) ABOVE]

015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4370] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How often must I determine the sulfur content of the fuel?

60.4370 How often must I determine the sulfur content of the fuel? - [N/A - THE SULFUR CONTENT OF THE FUEL IS DETERMINED IN ACCORDANCE WITH 60.4365]

60.4370(a) thru (c) - [N/A - THE SULFUR CONTENT OF THE FUEL IS DETERMINED IN ACCORDANCE WITH 60.4365]

016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4385] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How are excess emissions and monitoring downtime defined for SO2?

60.4385(a), (b) & (c) - [N/A - THE SULFUR CONTENT OF THE FUEL IS DETERMINED IN ACCORDANCE WITH 60.4365]

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

V. REPORTING REQUIREMENTS.

017 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4375] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines What reports must I submit?

60.4375(a) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

60.4375(b) - [N/A - ANNUAL TESTING IN ACCORDANCE WITH 60.4340(a) IS NOT REQUIRED SINCE USING CEMS]





018 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4380] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How are excess emissions and monitor downtime defined for NOX?

For the purpose of reports required under 40 CFR Part §60.7(c), periods of excess emissions and monitor downtime that must be reported are defined as follows:

60.4380(a) - [N/A - TURBINES ARE USING CEMS]

60.4380(b) For turbines using continuous emission monitoring, as described in §§60.4335(b) and 60.4345:

60.4380(b)(1) An excess emissions is any unit operating period in which the 4-hour or 30-day rolling average NOX emission rate exceeds the applicable emission limit in §60.4320. For the purposes of this subpart, a "4-hour rolling average NOX emission rate" is the arithmetic average of the average NOX emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NOX emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NOX emission rate is obtained for at least 3 of the 4 hours. For the purposes of this subpart, a "30-day rolling average NOX emission rate" is the arithmetic average of all hourly NOX emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NOX emissions rates for the preceding 30 unit operating days if a valid NOX emission rate is obtained for at least 75 percent of all operating hours.

60.4380(b)(2) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NOX concentration, CO2 or O2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you will use this information for compliance purposes.

60.4380(b)(3) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

60.4380(c) - [N/A - TURBINES ARE USING CEMS]

019 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4390] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What are my reporting requirements if I operate an emergency combustion turbine or a research and development turbine?

60.4390(a) & (b) - [N/A - TURBINE UNITS ARE NOT EMERGENCY COMBUSTION TURBINES OR RESEARCH AND DEVELOPMENT TURBINES]

020 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4395] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines When must I submit my reports?

All reports required under § 60.7(c) must be postmarked by the 30th day following the end of each 6-month period.

VI. WORK PRACTICE REQUIREMENTS.

021 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4333] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines What are my general requirements for complying with this subpart?

60.4333(a) You must operate and maintain your stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

60.4333(b)(1) -(2) - [N/A - TURBINES DO NOT HAVE HEAT RECOVERY]

DEP Auth ID: 838532





VII. ADDITIONAL REQUIREMENTS.

022 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4305] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines Does this subpart apply to my stationary combustion turbine?

The combustion turbines are subject to 40 CFR Part 60 Subpart KKKK of the Standards of Performance for New Stationary Sources. The equipment shall comply with all applicable requirements of the Subpart. 40 CFR Section 60.4 requires submission of all requests, reports, applications, submittals, and other communications to both EPA and the Department. The EPA copies shall be forwarded to:

Director
Air Protection
USEPA, Region III
1650 Arch Street
Philadelphia, PA 19103-2029





Group Name:

SG03

Group Description: Clean Air Interstate Rule (CAIR) Requirements

Sources included in this group

ID	Name Name
047	COMBUSTION TURBINE, DUAL FUEL, T01
048	COMBUSTION TURBINE, DUAL FUEL, T02

I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.106]
Subpart AA - CAIR NOX Annual Trading Program General Provisions
Standard requirements.

NOx Annual Emissions Requirements - 40 CFR Section 97.106 Standard Requirements.

- (a) The owners and operators of each CAIR NOx source required to have a Title V operating permit and each CAIR NOx unit required to have a Title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CC of this part for the source and operate the source and the unit in compliance with such CAIR permit.
- (b) Except as provided in subpart II of this part, the owners and operators of a CAIR NOx source that is not otherwise required to have a Title V operating permit and each CAIR NOx unit that is not otherwise required to have a Title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CC of this part for such CAIR NOx source and such CAIR NOx unit.
- (c) The owners and operators, and the CAIR designated representative, of each CAIR NOx source and each CAIR NOx unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HH of this part.
- (d) The emissions measurements recorded and reported in accordance with subpart HH of this part shall be used to determine compliance by each CAIR NOx source with the CAIR NOx emissions limitation under paragraph (e) of this section.
- (e) Nitrogen oxides emission requirements.
- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NOx source and each CAIR NOx unit at the source shall hold, in the source's compliance account, CAIR NOx allowances available for compliance deductions for the control period under §97.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NOx units at the source, as determined in accordance with subpart HH of this part.
- (2) A CAIR NOx unit shall be subject to the requirements under paragraph (e)(1) of this section for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §97.170(b)(1), (2), or (5) and for each control period thereafter.
- (3) A CAIR NOx allowance shall not be deducted, for compliance with the requirements under paragraph (e) of this section, for a control period in a calendar year before the year for which the CAIR NOx allowance was allocated.
- (4) CAIR NOx allowances shall be held in, deducted from, or transferred into or among CAIR NOx allowance Tracking System accounts in accordance with subparts EE, FF, GG, and II of this part.
- (5) A CAIR NOx allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOx Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §97.105 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (6) A CAIR NOx allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under subpart EE, FF, GG, or II of this part, every allocation, transfer, or deduction of a CAIR NOx allowance to or from a CAIR NOx source's compliance account is incorporated automatically in any CAIR





permit of the source.

- (f) Excess emissions requirements.
- (1) If a CAIR NOx source emits nitrogen oxides during any control period in excess of the CAIR NOx emissions limitation, then:
- (i) The owners and operators of the source and each CAIR NOx unit at the source shall surrender the CAIR NOx allowances required for deduction under §97.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and
- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.
- (g) Liability
- (1) Each CAIR NOx source and each CAIR NOx unit shall meet the requirements of the CAIR NOx Annual Trading Program.
- (2) Any provision of the CAIR NOx Annual Trading Program that applies to a CAIR NOx source or the CAIR designated representative of a CAIR NOx source shall also apply to the owners and operators of such source and of the CAIR NOx units at the source.
- (3) Any provision of the CAIR NOx Annual Trading Program that applies to a CAIR NOx unit or the CAIR designated representative of a CAIR NOx unit shall also apply to the owners and operators of such unit.
- (h) Effect on other authorities.
- (1) No provision of the CAIR NOx Annual Trading Program, a CAIR permit application, a CAIR permit, or an exemption under §97.105 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NOx source or CAIR NOx unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.
- # 002 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.206]
 Subpart AAA CAIR SO2 Trading Program General Provisions
 Standard requirements.

SO2 Annual Emissions Requirements - 40 CFR Section 97.206 Standard Requirements.

- (a) The owners and operators of each CAIR SO2 source required to have a Title V operating permit and each CAIR SO2 unit required to have a Title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CCC of this part for the source and operate the source and the unit in compliance with such CAIR permit.
- (b) Except as provided in subpart III of this part, the owners and operators of a CAIR SO2 source that is not otherwise required to have a Title V operating permit and each CAIR SO2 unit that is not otherwise required to have a Title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CCC of this part for such CAIR SO2 source and such CAIR SO2 unit.
- (c) The owners and operators, and the CAIR designated representative, of each CAIR SO2 source and each CAIR SO2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHH of this part.
- (d) The emissions measurements recorded and reported in accordance with subpart HHH of this part shall be used to determine compliance by each CAIR SO2 source with the CAIR SO2 emissions limitation under paragraph (e) of this section.
- (e) Sulfur Dioxide Emission Requirements,
- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO2 source and each CAIR SO2 unit at the source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO2 allowances



available for compliance deductions for the control period, as determined in accordance with §97.254(a) and (b), not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO2 units at the source, as determined in accordance with subpart HHH of this part.

- (2) A CAIR SO2 unit shall be subject to the requirements under paragraph (e)(1) of this section for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit(s) monitor certification requirements under §97.270(b)(1),(2), or (5) and for each control period thereafter.
- (3) A CAIR SO2 allowance shall not be deducted, for compliance with the requirements under paragraph (e)(1) of this section, for a control period in a calendar year before the year for which the CAIR SO2 allowance was allocated.
- (4) CAIR SO2 allowances shall be held in, deducted from, or transferred into or among CAIR SO2 allowance Tracking System accounts in accordance with subparts FFF, GGG, and III of this part.
- (5) A CAIR SO2 allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO2 Trading Program. No provision of the CAIR SO2 Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §97.205 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (6) A CAIR SO2 allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under subpart FFF, GGG, or III of this part, every allocation, transfer, or deduction of a CAIR SO2 allowance to or from a CAIR SO2 source's compliance account is incorporated automatically in any CAIR permit of the source.
- (f) Excess emissions requirements.
- (1) If a CAIR SO2 source emits sulfur dioxide during any control period in excess of the CAIR SO2 emissions limitation, then:
- (i) The owners and operators of the source and each CAIR SO2 unit at the source shall surrender the CAIR SO2 allowances required for deduction under §97.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and
- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.
- (g) Liability
- (1) Each CAIR SO2 source and each CAIR SO2 unit shall meet the requirements of the CAIR SO2 Trading Program.
- (2) Any provisions of the CAIR SO2 Trading Program that applies to a CAIR SO2 source or the CAIR designated representative of a CAIR SO2 source shall also apply to the owners and operators of such source and of the CAIR SO2 units at the source.
- (3) Any provisions of the CAIR SO2 Trading Program that applies to a CAIR SO2 unit or the CAIR designated representative of a CAIR SO2 unit shall also apply to the owners and operators of such unit.
- (h) Effects on other authorities.
- (1) No provision of the CAIR SO2 Trading Program, a CAIR permit application, a CAIR permit, or an exemption under Section 97.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR SO2 source or CAIR SO2 unit from compliance with any other provisions of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.



003 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.306]
Subpart AAAA - CAIR NOX Ozone Season Trading Program General Provisions
Standard requirements.

NOx Ozone Season Emission Requirements - 40 CFR Section 97,306 Standard Requirements.

- (a) The owners and operators of each CAIR NOx Ozone Season source required to have a Title V operating permit and each CAIR NOx Ozone Season unit required to have a Title V operating permit at the source shall have a CAIR permit issued by the permitting authority under subpart CCCC of this part for the source and operate the source and the unit in compliance with such CAIR permit.
- (b) Except as provided in subpart IIII of this part, the owners and operators of a CAIR NOx Ozone Season source that is not otherwise required to have a Title V operating permit and each CAIR NOx Ozone Season unit that is not otherwise required to have a Title V operating permit are not required to submit a CAIR permit application, and to have a CAIR permit, under subpart CCCC of this part for such CAIR NOx Ozone Season source and such CAIR NOx Ozone Season unit.
- (c) The owners and operators, and the CAIR designated representative, of each CAIR NOx Ozone Season source and each CAIR NOx Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of subpart HHHH of this part.
- (d) The emissions measurements recorded and reported in accordance with subpart HHHH of this part shall be used to determine compliance by each CAIR NOx Ozone Season source with the CAIR NOx Ozone Season emissions limitation under paragraph (e) of this section.
- (e) Nitrogen oxides ozone season emission requirements.
- (1) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NOx Ozone Season source and each CAIR NOx Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NOx Ozone Season allowances available for compliance deductions for the control period under §97.354(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NOx Ozone Season units at the source, as determined in accordance with subpart HHHH of this part.
- (2) A CAIR NOx Ozone Season unit shall be subject to the requirements under paragraph (e)(1) of this section for the control period starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under §97.370(b)(1), (2), (3), or (7) and for each control period thereafter.
- (3) A CAIR NOx Ozone Season allowance shall not be deducted, for compliance with the requirements under paragraph (c)(1) of this section, for a control period in a calendar year before the year for which the CAIR NOx Ozone Season allowance was allocated.
- (4) CAIR NOx Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NOx Ozone Season Allowance Tracking System accounts in accordance with subparts EEEE, FFFF, GGGG, and IIII of this part.
- (5) A CAIR NOx Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NOx Ozone Season Trading Program. No provision of the CAIR NOx Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under §97.305 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (6) A CAIR NOx Ozone Season allowance does not constitute a property right.
- (7) Upon recordation by the Administrator under subpart EEEE, FFFF, GGGG, or IIII of this part, every allocation, transfer, or deduction of a CAIR NOx Ozone Season allowance to or from a CAIR NOx Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.
- (f) Excess emissions requirements.
- (1) If a CAIR NOx Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NOx Ozone



Season emissions limitation, then:

- (i) The owners and operators of the source and each CAIR NOx Ozone Season unit at the source shall surrender the CAIR NOx Ozone Season allowances required for deduction under §97.354(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law; and
- (ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart, the Clean Air Act, and applicable State law.
- (g) Liability.
- (1) Each CAIR NOx Ozone Season source and each CAIR NOx Ozone Season unit shall meet the requirements of the CAIR NOx Ozone Season Trading Program.
- (2) Any provision of the CAIR NOx Ozone Season Trading Program that applies to a CAIR NOx Ozone Season source or the CAIR designated representative of a CAIR NOx Ozone Season source shall also apply to the owners and operators of such source and of the CAIR NOx Ozone Season units at the source.
- (3) Any provision of the CAIR NOx Ozone Season Trading Program that applies to a CAIR NOx Ozone Season unit or the CAIR designated representative of a CAIR NOx Ozone Season unit shall also apply to the owners and operators of such unit.
- (h) Effects on other authorities.
- (1) No provision of the CAIR NOx Ozone Season Trading Program, a CAIR permit application, a CAIR permit, or an exemption under §97.305 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NOx Ozone Season source or CAIR NOx Ozone Season unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

004 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.106] Subpart AA - CAIR NOX Annual Trading Program General Provisions Standard requirements.

NOx Annual Emissions Requirements - 40 CFR Section 97.106 Standard Requirements.

- (a) Unless otherwise provided, the owners and operators of the CAIR NOx source and each CAIR NOx unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.
- (1) The certificate of representation under §97.113 for the CAIR designated representative for the source and each CAIR NOx unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under §97.113 changing the CAIR designated representative.



- (2) All emissions monitoring information, in accordance with subpart HH of this part, provided that to the extent that subpart HH of this part provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOx Annual Trading Program.
- (4) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOx Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NOx Annual Trading Program.
- # 005 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.206] Subpart AAA CAIR SO2 Trading Program General Provisions Standard requirements.
- SO2 Annual Emissions Requirements 40 CFR Section 97.206 Standard Requirements.
- (a) Unless otherwise provided, the owners and operators of the CAIR SO2 source and each CAIR SO2 unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.
- (1) The certificate of representation under §97.213 for the CAIR designated representative for the source and each CAIR SO2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under §97.213 changing the CAIR designated representative.
- (2) All emissions monitoring information, in accordance with subpart HHH of this part, provided that to the extent that subpart HHH of this part provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO2 Trading Program.
- (4) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR SO2 Trading Program or to demonstrate compliance with the requirements of the CAIR SO2 Trading Program.
- # 006 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.306] Subpart AAAA CAIR NOX Ozone Season Trading Program General Provisions Standard requirements.

NOx Ozone Season Emission Requirements - 40 CFR Section 97.306 Standard Requirements.

- (a) Unless otherwise provided, the owners and operators of the CAIR NOx Ozone Season source and each CAIR NOx Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.
- (1) The certificate of representation under §97.313 for the CAIR designated representative for the source and each CAIR NOx Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under §97.313 changing the CAIR designated representative.
- (2) All emissions monitoring information, in accordance with subpart HHHH of this part, provided that to the extent that subpart HHHH of this part provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOx Ozone Season Trading Program.
- (4) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOx Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NOx Ozone Season



Trading Program.

V. REPORTING REQUIREMENTS.

007 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.106] Subpart AA - CAIR NOX Annual Trading Program General Provisions Standard requirements.

NOx Annual Emissions Requirements - 40 CFR Section 97.106 Standard Requirements.

- (a) The CAIR designated representative of each CAIR NOx source required to have a Title V operating permit and each CAIR NOx unit required to have a Title V operating permit at the source shall:
- (1) Submit to the permitting authority a complete CAIR permit application under §97.122 in accordance with the deadlines specified in §97.121; and
- (2) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.
- (b) The CAIR designated representative of a CAIR NOx source and each CAIR NOx unit at the source shall submit the reports required under the CAIR NOx Annual Trading Program, including those under subpart HH of this part.
- # 008 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.206] Subpart AAA CAIR SO2 Trading Program General Provisions Standard requirements.
- SO2 Annual Emissions Requirements 40 CFR Section 97.206 Standard Requirements.
- (a) The CAIR designated representative of each CAIR SO2 source required to have a Title V operating permit and each CAIR SO2 unit required to have a Title V operating permit at the source shall:
- (1) Submit to the permitting authority a complete CAIR permit application under §97.222 in accordance with the deadlines specified in §97.221; and
- (2) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.
- (b) The CAIR designated representative of a CAIR SO2 source and each CAIR SO2 unit at the source shall submit the reports required under the CAIR SO2 Trading Program, including those under subpart HHH of this part.
- # 009 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.306] Subpart AAAA CAIR NOX Ozone Season Trading Program General Provisions Standard requirements.

NOx Ozone Season Emission Requirements - 40 CFR Section 97.306 Standard Requirements.

- (a) The CAIR designated representative of each CAIR NOx Ozone Season source required to have a Title V operating permit and each CAIR NOx Ozone Season unit required to have a Title V operating permit at the source shall:
- (1) Submit to the permitting authority a complete CAIR permit application under §97.322 in accordance with the deadlines specified in §97.321; and
- (2) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.
- (b) The CAIR designated representative of a CAIR NOx Ozone Season source and each CAIR NOx Ozone Season unit at the source shall submit the reports required under the CAIR NOx Ozone Season Trading Program, including those under subpart HHHH of this part.





VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Standard Requirements (PADEP)

In addition to the Federal requirements in the previous sections of this application, all units that meet the applicability requirements in 25 Pa Code §145.203 shall meet any applicable requirement of 25 Pa Code §\$145.204, 145.205, 145.212, 145.213, 145.222, and 145.223.

- § 145.204. Incorporation of Federal regulations by reference.
- (a) Except as otherwise specified in this subchapter, the provisions of the CAIR NOx Annual Trading Program, found in 40 CFR Part 96 (relating to NOx budget trading program and CAIR NOx and SO2 trading programs for State implementation plans), including all appendices, future amendments and supplements thereto, are incorporated by reference.
- (b) Except as otherwise specified in this subchapter, the provisions of the CAIR SO2 Trading Program, found in 40 CFR Part 96, including all appendices, future amendments and supplements thereto, are incorporated by reference.
- (c) Except as otherwise specified in this subchapter, the provisions of the CAIR NOx Ozone Season Trading Program, found in 40 CFR Part 96, including all appendices, future amendments and supplements thereto, are incorporated by reference.
- (d) In the event of a conflict between Federal regulatory provisions incorporated by reference in this subchapter and Pennsylvania regulatory provisions, the provision expressly set out in this subchapter shall be followed unless the Federal provision is more stringent. Federal regulations that are cited in this subchapter or that are cross-referenced in the Federal regulations incorporated by reference include any Pennsylvania modifications made to those Federal regulations.
- § 145.205. Emission reduction credit provisions.

The following conditions shall be satisfied in order for the Department to issue a permit or plan approval to the owner or operator of a unit not subject to this subchapter that is relying on emission reduction credits (ERCs) or creditable emission reductions in an applicability determination under Chapter 127, Subchapter E (relating to new source review), or is seeking to enter into an emissions trade authorized under Chapter 127 (relating to construction, modification, reactivation and operation of sources), if the ERCs or creditable emission reductions were, or will be, generated by a unit subject to this subchapter.

- (1) Prior to issuing the permit or plan approval, the Department will permanently reduce the Commonwealth's CAIR NOx trading budget or CAIR NOx Ozone Season trading budget, or both, as applicable, beginning with the sixth control period following the date the plan approval or permit to commence operations or increase emissions is issued. The Department will permanently reduce the applicable CAIR NOx budgets by an amount of allowances equal to the ERCs or creditable emission reductions relied upon in the applicability determination for the non-CAIR unit subject to Chapter 127, Subchapter E or in the amount equal to the emissions trade authorized under Chapter 127, as if these emissions had already been emitted.
- (2) The permit or plan approval must prohibit the owner or operator from commencing operation or increasing emissions until the owner or operator of the CAIR unit generating the ERC or creditable emission reduction surrenders to the Department an amount of allowances equal to the ERCs or emission reduction credits relied upon in the applicability determination for the non-CAIR unit under Chapter 127, Subchapter E or the amount equal to the ERC trade authorized under Chapter 127, for each of the five consecutive control periods following the date the non-CAIR unit commences operation or increases emissions. The allowances surrendered must be of present or past vintage years.

Additional Requirements for CAIR NOx Annual Trading Program

§ 145.212. CAIR NOx allowance allocations.



(a) Provisions not incorporated by reference.

The requirements of 40 CFR 96.142 (relating to CAIR NOx allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.142, the requirements set forth in this section apply.

(b) Baseline heat input.

Baseline heat input for each CAIR NOx unit will be converted as follows:

- (1) A unit's control period heat input and a unit's status as coal-fired or oil-fired for a calendar year under this paragraph will be determined in one of the following two ways:
- (i) In accordance with 40 CFR Part 75 (relating to continuous emission monitoring), to the extent that the unit was otherwise subject to 40 CFR Part 75 for the year.
- (ii) Based on the best available data reported to the Department for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year.
- (2) Except as provided in subparagraphs (iv) and (v), a unit's converted control period heat input for a calendar year shall be determined as follows:
- (i) The control period gross electrical output of the generators served by the unit multiplied by 7,900 Btu/kWh if the unit is coal-fired for the year, and divided by 1,000,000 Btu/mmBtu.
- (ii) The control period gross electrical output of the generators served by the unit multiplied by 6,675 Btu/kWh if the unit is not coal-fired for the year, and divided by 1,000,000 Btu/mmBtu.
- (iii) If a generator is served by two or more units, the gross electrical output of the generator will be attributed to each unit in proportion to the share of the total control period heat input from each of the units for the year.
- (iv) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the total heat energy (in Btus) of the steam produced by the boiler during the annual control period, divided by 0.8 and by 1,000,000 Btu/mmBtu.
- (v) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the annual control period gross electrical output of the enclosed device comprising the compressor, combustor and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the annual control period divided by 0.8, and with the sum divided by 1,000,000 Btu/mmBtu.
- (vi) Calculations will be based on the best output data available on or before January 31 of the year the allocations are published. If unit level electrical or steam output data are not available from EIA, or submitted by this date by the owner or operator of the CAIR NOx unit, then heat input data for the period multiplied by 0.25 and converted to MWh will be used to determine total output.
- (c) Existing unit, new unit and subsection (f)(1) qualifying resource allocation baseline.

For each control period beginning with January 1, 2010, and each year thereafter, the Department will allocate to qualifying resources and CAIR NOx units, including CAIR NOx units issued allowances under subsection (e), a total amount of CAIR NOx allowances equal to the number of CAIR NOx allowances remaining in the Commonwealth's CAIR NOx trading budget under 40 CFR 96.140 (relating to State trading budgets) for those control periods using summed baseline heat input data as determined under subsections (b) and (f)(1) from a baseline year that is 6 calendar years before the control period.

(d) Proration of allowance allocations.

The Department will allocate CAIR NOx allowances to each existing CAIR NOx unit and qualifying resource in an amount determined by multiplying the amount of CAIR NOx allowances in the Commonwealth's CAIR NOx trading budget available





for allocation under subsection (c) by the ratio of the baseline heat input of the existing CAIR NOx unit or qualifying resource to the sum of the baseline heat input of existing CAIR NOx units and of the qualifying resources, rounding to the nearest whole allowance as appropriate.

(e) Allocations to new CAIR NOx units.

By March 31, 2011, and March 31 each year thereafter, the Department will allocate CAIR NOx allowances under § 145.211(c) (relating to timing requirements for CAIR NOx allowance allocations) to CAIR NOx units equal to the previous year's emissions at each unit, unless the unit has been issued allowances of the previous year's vintage in a regular allocation under § 145.211(b). The Department will allocate CAIR NOx allowances under this subsection of a vintage year that is 5 years later than the year in which the emissions were generated. The number of CAIR NOx allowances allocated may not exceed the actual emission of the year preceding the year in which the Department makes the allocation. The allocation of these allowances to the new unit will not reduce the number of allowances the unit is entitled to receive under another provision of this subchapter.

(f) Allocations to qualifying resources and units exempted by Section 405(g)(6)(a) of the Clean Air Act.

For each control period beginning with 2010 and thereafter, the Department will allocate CAIR NOx allowances to qualifying resources under paragraph (1) in this Commonwealth that are not also allocated CAIR NOx allowances under another provision of this subchapter and to existing units under paragraph (2) that were exempted at any time under Section 405(g)(6)(a) of the Clean Air Act (42 U.S.C.A. § 7651d(g)(6)(A)), regarding phase II SO2 requirements, and that commenced operation prior to January 1, 2000, but did not receive an allocation of SO2 allowances under the EPA's Acid Rain Program, as follows:

- (1) The Department will allocate CAIR NOx allowances to a renewable energy qualifying resource or demand side management energy efficiency qualifying resource in accordance with subsections (c) and (d) upon receipt by the Department of an application, in writing, on or before June 30 of the year following the control period, except for vintage year 2011 and 2012 NOx allowance allocations whose application deadline will be prescribed by the Department, meeting the requirements of this paragraph. The number of allowances allocated to the qualifying resource will be determined by converting the certified quantity of electric energy production, useful thermal energy, and energy equivalent value of the measures approved under the Pennsylvania Alternative Energy Portfolio Standard to equivalent thermal energy. Equivalent thermal energy is a unit's baseline heat input for allocation purposes. The conversion rate for converting electrical energy to equivalent thermal energy is 3,413 Btu/kWh. To receive allowances under this subsection, the qualifying resource must have commenced operation after January 1, 2005, must be located in this Commonwealth and may not be a CAIR NOx unit. The following procedures apply:
- (i) The owner of a qualifying renewable energy resource shall appoint a CAIR-authorized account representative and file a certificate of representation with the EPA and the Department.
- (ii) The Department will transfer the allowances into an account designated by the owner's CAIR-authorized account representative of the qualifying resource, or into an account designated by an aggregator approved by the Pennsylvania Public Utility Commission or its designee.
- (iii) The applicant shall provide the Department with the corresponding renewable energy certificate serial numbers.
- (iv) At least one whole allowance must be generated per owner, operator or aggregator for an allowance to be issued.
- (2) The Department will allocate CAIR NOx allowances to the owner or operator of a CAIR SO2 unit that commenced operation prior to January 1, 2000, that has not received an SO2 allocation for that compliance period, as follows:
- (i) By January 31, 2011, and each year thereafter, the owner or operator of a unit may apply, in writing, to the Department under this subsection to receive extra CAIR NOx allowances.
- (ii) The owner or operator may request under this subparagraph one CAIR NOx allowance for every 8 tons of SO2 emitted from a qualifying unit during the preceding control period. An owner or operator of a unit covered under this subparagraph that has opted into the Acid Rain Program may request one CAIR NOx allowance for every 8 tons of SO2 emissions that have not been covered by the SO2 allowances received as a result of opting into the Acid Rain Program.





(iii) If the original CAIR NOx allowance allocation for the unit for the control period exceeded the unit's actual emissions of NOx for the control period, the owner or operator shall also deduct the excess CAIR NOx allowances from the unit's request under subparagraph (ii). This amount is the unit's adjusted allocation and will be allocated unless the proration described in subparagraph (iv) applies.

(iv) The Department will make any necessary corrections and then sum the requests. If the total number of NOx allowances requested by all qualified units under this paragraph, as adjusted by subparagraph (iii), is less than 1.3% of the Commonwealth's CAIR NOx Trading Budget, the Department will allocate the corrected amounts. If the total number of NOx allowances requested by all qualified units under this paragraph exceeds 1.3% of the Commonwealth's CAIR NOx Trading Budget, the Department will prorate the allocations based upon the following equation:

AA = [EA * X (0.013 * BNA)] / TRA

where,

AA is the unit's prorated allocation,

EA is the adjusted allocation the unit may request under subparagraph (iii),
BNA is the total number of CAIR NOx allowances in the Commonwealth's CAIR NOx trading budget,
TRA is the total number of CAIR NOx allowances requested by all units requesting allowances under this paragraph.

- (3) The Department will review each CAIR NOx allowance allocation request under this subsection and will allocate CAIR NOx allowances for each control period under a request as follows:
- (i) The Department will accept an allowance allocation request only if the request meets, or is adjusted by the Department as necessary to meet, the requirements of this section.
- (ii) On or after January 1 of the year of allocation, the Department will determine the sum of the CAIR NOx allowances requested.
- (4) Up to 1.3% of the Commonwealth's CAIR NOx trading budget is available for allocation in each allocation cycle from 2011-2016 to allocate 2010-2015 allowances for the purpose of offsetting SO2 emissions from units described in paragraph (2). Beginning January 1, 2017, and for each allocation cycle thereafter, the units will no longer be allocated CAIR NOx allowances under paragraph (2). Any allowances remaining after this allocation will be allocated to units under subsection (c) during the next allocation cycle.
- (5) Notwithstanding the provisions of paragraphs (2)-(4), the Department may extend, terminate or otherwise modify the allocation of NOx allowances made available under this subsection for units exempted under section 405(g)(6)(a) of the Clean Air Act after providing notice in the Pennsylvania Bulletin and at least a 30-day public comment period.
- (g) The Department will correct any errors in allocations made by the Department and discovered after final allocations are made but before the next allocation cycle, in the subsequent allocation cycle using future allowances that have not yet been allocated.

Section§ 145.213. Supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.170--96.175.

- (a) By January 1, 2009, or by the date of commencing commercial operation, whichever is later, the owner or operator of the CAIR NOx unit shall install, calibrate, maintain and operate a wattmeter, measure gross electrical output in megawatt-hours on a continuous basis and record the output of the wattmeter. If a generator is served by two or more units, the information to determine the heat input of each unit for that control period shall also be recorded, so as to allow each unit's share of the gross electrical output to be determined. If heat input data are used, the owner or operator shall comply with the applicable provisions of 40 CFR Part 75 (relating to continuous emission monitoring).
- (b) By September 1, 2008, for a CAIR NOx unit that is a cogeneration unit, and for a CAIR NOx unit with cogeneration capabilities, the owner or operator shall install, calibrate, maintain and operate meters for steam flow in lbs/hr, temperature in degrees Fahrenheit, and pressure in PSI, to measure and record the useful thermal energy that is produced, in mmBtu/hr, on a continuous basis. The owner or operator of a CAIR NOx unit that produces useful thermal energy but uses an energy transfer medium other than steam, such as hot water or glycol, shall install, calibrate, maintain and operate the necessary meters to measure and record the data necessary to express the useful thermal energy produced, in mmBtu/hr,





on a continuous basis. If the unit ceases to produce useful thermal energy, the owner or operator may cease operation of the meters, but operation of the meters shall be resumed if the unit resumes production of useful thermal energy.

- (c) Beginning with 2009, the designated representative of the unit shall submit to the Department an annual report showing monthly gross electrical output and monthly useful thermal energy from the unit. The report is due by January 31 for the preceding calendar year.
- (d) The owner or operator of a CAR NOx unit shall maintain onsite the monitoring plan detailing the monitoring system and maintenance of the monitoring system, including quality assurance activities. The owner or operator of a CAR NOx unit shall retain the monitoring plan for at least 5 years from the date that it is replaced by a new or revised monitoring plan. The owner or operator of a CAR NOx unit shall provide the Department with a written copy of the monitoring plan by January 1, 2009, and thereafter within 3 calendar months of making updates to the plan.
- (e) The owner or operator of a CAIR NOx unit shall retain records for at least 5 years from the date the record is created or the data collected as required by subsections (a) and (b), and the reports submitted to the Department and the EPA in accordance with subsections (c) and (d).

Additional Requirements for CAIR NOx Ozone Season Trading Program

- § 145.222. CAIR NOx Ozone Season allowance allocations.
- (a) Provisions not incorporated by reference.

The requirements of 40 CFR 96.342 (relating to CAIR NOx Ozone Season allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.342, the requirements in this section apply.

(b) Baseline heat input.

Baseline heat input for each CAIR NOx Ozone Season unit will be converted as follows:

- (1) A unit's control period heat input and a unit's status as coal-fired or oil-fired for the ozone season portion of a calendar year under this paragraph will be determined in one of the following two ways:
- (i) In accordance with 40 CFR Part 75 (relating to continuous emission monitoring), to the extent that the unit was otherwise subject to the requirements of 40 CFR Part 75 for the control period.
- (ii) Based on the best available data reported to the Department for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year.
- (2) Except as provided in subparagraphs (iv) and (v), a unit's converted control period heat input for the ozone season portion of a calendar year shall be determined as follows:
- (i) The control period gross electrical output of the generators served by the unit multiplied by 7,900 Btu/kWh if the unit is coal-fired for the ozone season control period, and divided by 1,000,000 Btu/mmBtu.
- (ii) The control period gross electrical output of the generators served by the unit multiplied by 6,675 Btu/kWh if the unit is not coal-fired for the ozone season control period, and divided by 1,000,000 Btu/mmBtu.
- (iii) If a generator is served by 2 or more units, the gross electrical output of the generator will be attributed to each unit in proportion to the share of the total control period heat input from each of the units for the ozone season control period.
- (iv) For a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the total heat energy (in Btus) of the steam produced by the boiler during the ozone season control period, divided by 0.8 and by 1,000,000 Btu/mmBtu.
- (v) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the control period gross electrical





output of the enclosed device comprising the compressor, combustor and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the ozone season control period divided by 0.8, and with the sum divided by 1,000,000 Btu/mmBtu.

- (vi) Calculations will be based on the best output data available on or before January 31 of the year the allocations are published. If unit level electrical or steam output data are not available from EIA, or submitted by this date by the owner or operator of the CAIR NOx Ozone Season unit, then heat input data for the period multiplied by 0.25 and converted to MWh will be used to determine total output.
- (c) Existing unit, new unit and subsection (f)(1) qualifying resource allocation baseline.

For each control period beginning with the 2010 control period and thereafter, the Department will allocate to qualifying resources and CAIR NOx Ozone Season units, including CAIR NOx Ozone Season units issued allowances under subsection (e), a total amount of CAIR NOx Ozone Season allowances equal to the number of CAIR NOx Ozone Season allowances remaining in the Commonwealth's CAIR NOx Ozone Season trading budget under 40 CFR 96.140 (relating to State trading budgets) for those control periods using summed baseline heat input data as determined under subsections (b) and (f)(1) from an ozone season control period in a baseline year that is 6 calendar years before the control period.

(d) Proration of allowance allocations.

The Department will allocate CAIR NOx Ozone Season allowances to each existing CAIR NOx Ozone Season unit and qualifying resource in an amount determined by multiplying the amount of CAIR NOx Ozone Season allowances in the Commonwealth's CAIR NOx Ozone Season trading budget available for allocation under subsection (c) by the ratio of the baseline heat input of the existing CAIR NOx Ozone Season unit or qualifying resource to the sums of the baseline heat input of existing CAIR NOx Ozone Season units and of the qualifying resources, rounding to the nearest whole allowance as appropriate.

(e) Allocations to new CAIR NOx Ozone Season units.

By March 31, 2011, and March 31 each year thereafter, the Department will allocate CAIR NOx Ozone Season allowances under § 145.221(c) (relating to timing requirements for CAIR NOx Ozone Season allowance allocations) to CAIR NOx Ozone Season units equal to the previous year's emissions at each unit, unless the unit has been issued allowances of the previous year's vintage in a regular allocation under § 145.221(b). The Department will allocate CAIR NOx allowances under this subsection of a vintage year that is 5 years later than the year in which the emissions were generated. The number of CAIR NOx Ozone Season allowances allocated shall not exceed the actual emission of the year preceding the year in which the Department makes the allocation. The allocation of these allowances to the new unit will not reduce the number of allowances the unit is entitled to receive under another provision of this subchapter.

(f) Allocations to qualifying resources.

For each control period beginning with the 2010 control period, and thereafter, the Department will allocate CAIR NOx Ozone Season allowances to qualifying resources in this Commonwealth that are not also allocated CAIR NOx Ozone Season allowances under another provision of this subchapter, as follows:

- (1) The Department will allocate CAIR NOx Ozone Season allowances to a renewable energy qualifying resource or demand side management energy efficiency qualifying resource in accordance with subsections (c) and (d) upon receipt by the Department of an application, in writing, on or before June 30 of the year following the control period, except for vintage year 2011 and 2012 NOx Ozone Season allowance allocations whose application deadline will be prescribed by the Department, meeting the requirements of this paragraph. The number of allowances allocated to the qualifying resource will be determined by converting the certified quantity of electric energy production, useful thermal energy, and energy equivalent value of the measures approved under the Pennsylvania Alternative Energy Portfolio Standard to equivalent thermal energy. Equivalent thermal energy is a unit's baseline heat input for allocation purposes. The conversion rate for converting electrical energy to equivalent thermal energy is 3,413 Btu/kWh. To receive allowances under this subsection, the qualifying resource must have commenced operation after January 1, 2005, must be located in this Commonwealth and may not be a CAIR NOx Ozone Season unit. The following procedures apply:
- (i) The owner of a qualifying renewable energy resource shall appoint a CAIR-authorized account representative and file a





certificate of representation with the EPA and the Department.

- (ii) The Department will transfer the allowances into an account designated by the owner's CAIR-authorized account representative of the qualifying resource, or into an account designated by an aggregator approved by the Pennsylvania Public Utility Commission or its designee.
- (iii) The applicant shall provide the Department with the corresponding renewable energy certificate serial numbers.
- (iv) At least one whole allowance must be generated per owner, operator or aggregator for an allowance to be issued.
- (g) The Department will correct any errors in allocations made by the Department and discovered after final allocations are made but before the next allocation cycle, in the subsequent allocation cycle using future allowances that have not yet been allocated.
- § 145.223. Supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.370--96.375.
- (a) By January 1, 2009, or by the date of commencing commercial operation, whichever is later, the owner or operator of the CAIR NOx Ozone Season unit shall install, calibrate, maintain and operate a wattmeter, measure gross electrical output in megawatt-hours on a continuous basis and record the output of the wattmeter. If a generator is served by two or more units, the information to determine the heat input of each unit for that control period shall also be recorded, so as to allow each unit's share of the gross electrical output to be determined. If heat input data are used, the owner or operator shall comply with the applicable provisions of 40 CFR Part 75 (relating to continuous emission monitoring).
- (b) By September 1, 2008, for a CAIR NOx Ozone Season unit that is a cogeneration unit, and for a CAIR NOx Ozone Season unit with cogeneration capabilities, the owner or operator shall install, calibrate, maintain and operate meters for steam flow in lbs/hr, temperature in degrees Fahrenheit and pressure in PSI, to measure and record the useful thermal energy that is produced, in mmBtu/hr, on a continuous basis. The owner or operator of a CAIR NOx Ozone Season unit that produces useful thermal energy but uses an energy transfer medium other than steam, such as hot water or glycol, shall install, calibrate, maintain and operate the necessary meters to measure and record the data necessary to express the useful thermal energy produced, in mmBtu/hr, on a continuous basis. If the unit ceases to produce useful thermal energy, the owner or operator may cease operation of the meters, but operation of the meters shall be resumed if the unit resumes production of useful thermal energy.
- (c) Beginning with 2009, the designated representative of the unit shall submit to the Department an annual report showing monthly gross electrical output and monthly useful thermal energy from the unit. The report is due by January 31 for the preceding calendar year.
- (d) The owner or operator of a CAIR NOx Ozone Season unit shall maintain onsite the monitoring plan detailing the monitoring system and maintenance of the monitoring system, including quality assurance activities. The owner or operator of a CAIR NOx Ozone Season unit shall retain the monitoring plan for at least 5 years from the date that it is replaced by a new or revised monitoring plan. The owner or operator of a CAIR NOx Ozone Season unit shall provide the Department with a written copy of the monitoring plan by January 1, 2009, and thereafter within 3 calendar months of making updates to the plan.
- (e) The owner or operator of a CAIR NOx Ozone Season unit shall retain records for at least 5 years from the date the record is created or the data collected as required by subsections (a) and (b), and the reports submitted to the Department and the EPA in accordance with subsections (c) and (d).

011 [40 CFR Part 97 NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs §40 CFR 97.206] Subpart AAA - CAIR SO2 Trading Program General Provisions Standard requirements.

In accordance with 40 CFR PART 97 (relating to Federal NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs), the owners and operators and the CAIR designated representative of each CAIR source are subject to 40 CFR § 97.106 (relating to standard requirements), 40 CFR § 97.206 (relating to standard requirements) and 40 CFR § 97.306



(relating to standard requirements).





Group Name:

SG04

Group Description: CEMS Requirements

Sources included in this group

ID	Name
047	COMBUSTION TURBINE, DUAL FUEL, T01
048	COMBUSTION TURBINE, DUAL FUEL, T02

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Continuous emission monitoring for NOx (ppmv and lb/hr) and CO (ppmv and lb/hr) shall meet the following minimum data availability requirements:

- a.) In accordance with 25 Pa. Code Section 139.101(12), required monitoring shall, at a minimum, meet one of the following data availability requirements unless otherwise stipulated in this permit, a plan approval, Title 25 or an order issued under Section 4 of the Air Pollution Control Act:
- 1.) In each calendar month, at least 90% of the time periods for which each emission standard applies, shall be valid as set forth in the Quality Assurance section of Revision No.8 of the Department's Continuous Source Monitoring Manual, 274-0300-001, or
- 2.) In each calendar quarter, at least 95% of the hours shall be valid as set forth in the Quality Assurance section of Revision No. 8 of the Department's Continuous Source Monitoring Manual, 274-0300-001.

Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the regulations.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The following continuous emission monitoring systems (CEMS) must be installed, approved by the Department, operated and maintained in accordance with the requirements of 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), and the Submittal and Approval, Record Keeping and Reporting, and Quality Assurance requirements of Revision No. 8 of the Department's Continuous Source Monitoring Manual, 274-0300-001, and As Specified In Phase II, And Phase III Approval Issued By The Department.

1. NOx CEMS

- a. Source Combination to be Monitored: Sources 047 and 048
- b. Parameter to be Reported: NO2
- c. Units of Measurement to be Reported: ppmv and lb/hr
- d. Moisture Basis of Measurement to be Reported: Dry
- e. Correction basis of Measurements to be Reported: 15 percent oxygen
- f. NO2 Emission Standards (See Condition 002 in SG01)

2. CO CEMS

- a. Source Combination to be Monitored: Sources 047 and 048
- b. Parameter to be Reported: CO
- c. Units of Measurement to be Reported: ppmv and lb/hr
- d. Moisture Basis of Measurement to be Reported: Dry



- e. Correction basis of Measurements to be Reported: 15 percent oxygen
- f. CO Emission Standards (See Condition 002 in SG01)

Compliance with any subsequently issued revisions to the Continuous Source Monitoring Manual will constitute compliance with the regulations.

The NOx CEM must also comply with the requirements of 40 CFR 60.4345 as required by Subpart KKKK Standards of Performance for Stationary Gas Turbines.

The permittee shall operate the CEMS during periods of start-up and shutdown in a manner consistent with the requirements set forth in 40 CFR Part 75. The permittee shall assure that data obtained during those periods are valid and suitable for inclusion into reporting.

IV. RECORDKEEPING REQUIREMENTS.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 139.101(5) and 139.101(12)]

The permittee shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), (and) the 'Record Keeping and Reporting' requirements in the Department's Continuous Source Monitoring Manual, Revision No. 8, Document No. 274-0300-001.

Records shall be retained for at least 5 years and shall be made available to the Department upon request.

Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

V. REPORTING REQUIREMENTS.

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 139.101(1)(iv), 139.101(10), and 139.101(12)]

The permittee shall submit quarterly reports of continuous emission monitoring to the Department in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), (and) the 'Record Keeping and Reporting' requirements as established in the Department's Continuous Source Monitoring Manual, Revision No. 8, Document No. 274-0300-001.

The permittee shall report emissions for all periods of unit operation, including startup, shutdown and malfunction.

Initial quarterly reports following system certification shall be submitted to the Department within 35 days following the date upon which the Department notifies the owner or operator, in writing, of the approval of the continuous source monitoring system for use in determining compliance with applicable emission standards.

Subsequent quarterly reports shall be submitted to the Department within 30 days after the end of each calendar quarter.

Failure to submit required reports of continuous emission monitoring within the time periods specified in this Condition, shall constitute violations of this Permit, unless approved in advance by the Department in writing.

Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.





VI. WORK PRACTICE REQUIREMENTS.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Quality Assurance Requirements:

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 139.101(1)(v), 139.101(2), 139.101(3), 139.101(4), 139.101(6), 139.101(7), 139.101(8), 139.101(12), 139.101(14) and 139.101(15))]

Continuous Emission Monitoring Systems and components must be operated and maintained in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources) and the 'Quality Assurance' requirements in the Department's Continuous Source Monitoring Manual, Revision No. 8, Document No. 274-0300-001.

Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

VII. ADDITIONAL REQUIREMENTS.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

1. Initial Application (Phase I)

Proposals containing information as listed in the Phase I section of the Department's Continuous Source Monitoring Manual for the CEMS must be submitted no later than at least 180 days prior to the planned initial source startup date.

2. Performance Testing (Phase II)

Testing as listed in the Phase II section of the Department's Continuous Source Monitoring Manual must be completed for the CEMS no later than 180 days after initial source startup date and no later than 60 days after source achieves normal process capacity.

3. Final Approval (Phase III)

The final report of testing as listed in the Phase III section of the Department's Continuous Source Monitoring Manual must be submitted to the Bureau no later than 60 days after completion of testing.

4. The owner or operator of the source shall not be issued an operating permit until the CEMS has received Phase III approval, in writing from the Department. Until Phase III Department approval is obtained, operation shall be covered solely under condition of a plan approval.





SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this Plan Approval facility.





SECTION G. Emission Restriction Summary.

No emission restrictions listed in this section of the permit.





SECTION H. Miscellaneous.

The construction of two simple cycle turbines includes the following major equipment:

- a. Two simple cycle turbines between 47 61.5 MW gross output each.
- b. Two selective catalytic reduction (SCR) systems for the control of NOx emissions.
- c. Two catalytic oxidizer systems for the control of CO emissions.
- d. One 300,000 gallon distillate fuel oil tank.
- e. One 15,000 gallon tank to hold a 19 % solution of aqueous ammonia for the SCR system.
- f. One 200,000 gallon demineralized water tank

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***** End of Report *****